The Montana-Tonopah Mining Company

Reports for Fiscal Year
1905-1906

THE

MONTANA-TONOPAH MINING COMPANY

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SALT LAKE CITY, September 11, 1906.

To the Stockholders of the Montana-Tonopah Mining Company:

In compliance with the Articles of Incorporation, and pursuant to the notice mailed to each stockholder, the fourth annual meeting of the company was held at the general office in Salt Lake City, Utah, September 11, 1906.

There were present at the meeting 538,102 shares of the outstanding capital stock of the company, represented in person and by proxy.

The following were chosen as directors for the ensuing year: Henry D. Moore, J. Herbert Mullin, F. M. Kirk, George S. Nixon, Chas. E. Morris, J. J. McQuillan, Thos. J. Lynch, R. P. Dunlap and Chas. E. Knox.

The condition of the company's property and work done during the past year were fully set forth in the reports submitted by the President, General Manager, and Secretary and Treasurer.

These reports were ordered printed and a copy mailed to each stockholder.

Immediately after the adjournment of the stockholders' meeting, the Directors met and chose the following officers for the ensuing year:

Chas. E. Knox, President.
Chas. E. Morris, Vice-President.
R. P. Dunlap, Second Vice-President.
W. B. Alexander, Secretary and Treasurer.

Report of the President

To the Stockholders of the Montana-Tonopah Mining Company:

I herewith submit extracts from the quarterly reports of General Manager John A. Kirby, who retired from the management of the

company August 1st, and that of Mr. Mark B. Kerr, Mr. Kirby's successor.

The past year has been one of preparation, development and equipment—all indispensible necessities in the operation of big mines. Of the nine directors chosen a year ago, six were practical, experienced mining men, whose advice and direction have been of incalculable value to the property. Messrs. Dunlap, Samuel and the writer concurring, the actions of the board have been harmonious and unanimous.

At a meeting of the Board, held at Tonopah, October 15th and 16th, there were present eight directors. After making a careful examination, the Board, realizing that the machinery and equipment then in use was entirely inadequate to the needs of the property, called upon Mr. Kirby for suggestions. He advised the immediate purchase of a new hoist, a steel gallows frame and an additional compressor, with necessary motor and transformers to operate the same with electricity.

The Board authorized the immediate purcahse of this equipment, the vigorous prosecution of mill tests, and a continuation of the underground development work inaugurated by Mr. Kirby.

Accordingly, orders were placed in November and early December for—

1 60-foot Steel Head Frame.
1 Double Drum, Double Cylinder, 15 in. by 18 in. Hoist.
1 12-Drill Ingersoll-Sergeant Compressor.
1 200 H. P. Motor.
3 75 K. W. Transformers.
1 dozen Mine Cars.

All the above was contracted for sixty or ninety-day delivery, but it appears that all manufacturers of machinery have experienced great difficulty in executing their orders during the past year, and the steel head frame was the only part of our equipment shipped within thirty days of contract time.

The most serious delay, however, was that of the hoist, upon which we were entirely dependent for an increase in output, without which necessary development and dividends at the same time were physical impossibilities.

The date of shipment as per contract was February 5th; the actual date of shipment was August 17th, and the hoist was placed on our switch only ten days ago. It is now being set up and should be in operation about the 21st of this month.

In justice to ourselves and to the manufacturers we quote in full an explanatory letter from the Union Iron Works Company:

SAN FRANCISCO, August 17, 1906.

Subject: 15 in. by 18 in. Geared Hoist.

Montana-Tonopah Mining Company,
Tonopah, Nevada.

Dear Sirs:

We take pleasure in advising you that the 15 in. by 18 in. double drum, extended frame, geared hoisting engine which has been under construction for your company since last November, has at last been finished and shipped, the final carload having left the works today.

It goes without saying that we regret exceedingly the many annoying delays that you have been subjected to in the delivery of this hoisting engine, and while we do not wish to take up your time at this late date by telling you a hard luck story, we would like to give you a brief resume of the way the order was handled and of the difficulties which we have had to overcome during the nine months that have elapsed since the placing of your order.

The contract was signed through Messrs. Harron, Rickard & McCone of this city, on November 28, 1905, and orders had just gone to our draughting room to prepare necessary prints, in order to get the patterns into the foundry on the following morning, when on the evening of the day above mentioned, our mining deprtment shops on First street were seriously damaged by fire. This fire, which entirely destroyed our patterns and pattern shop, was the cause of the first great loss of time, not only on account of the loss of patterns which we expected to use in constructing your hoist,, but in the loss of time before we could resume operations, owing to the requirements of the insurance companies that things generally be left as they were until the loss had been adjusted.

A few days after the fire we received word from Messrs. Harron, Rickard & McCone, advising us that they were in receipt of a wire from you asking whether the fire would affect the delivery of your hoist. At that time we informed Messrs. Harron, Rickard & McCone that there would be but little delay, as we could transfer our work immediately to the main works at South San Francisco

In going over matters, however, we deemed it advisable to take advantage o fthe fact that our patterns had been entirely destroyed and to redesign and improve the hoist in a great many features, as new patterns would necessarily have to be made under any circumstances, and we felt that you would make allowances for the delay in the assurance of our turning out a superior article for you.

On reaching the above decision we advised your company by letter, addressed to your Superintendent, and on his approval we went ahead on those lines to make corrections in the drawings and get out an entire new set of patterns, which, you will understand, involved an

extra amount of work, which naturally was not taken into consideration at the time your order was placed.

In order to expedite matters as much as possible, as many of the small details as could be conveniently handled, were placed under construction at our temporary mining department works on First street, the hoist itself being under construction at the main works at South San Francisco. All of these small details were finished at our First street shop, and ready to send out to the main works, and the hoist itself was ready for assembling at the works at the time of the earthquake and fire of April 18th, this year. This fire completely destroyed all of the small details for your hoist, which were under construction at the First street works, as well as destroying our entire outfit of drawings, and, in fact, wiping the First street branch out completely.

This second fire necessitated: First, that we make entire new drawings; secondly, that we make entire new patterns, and thirdly, that the small details of the machinery itself be made over. You, of course, know what labor conditions were in San Francisco after the fire. We started up the main works as soon as the Spring Valley Water Company was able to supply us with fresh water, namely, about the end of the last week in April. The next problem was to get men, and in this respect we fared about as well as others in our line of business. The most serious shortage of men that we had was unfortunately in the pattern shop, where we had then, and only have now, seven or eight boys and two or three men, where under ordinary circumstances a force of from one hundred to one hundred and twenty-five is not at all abnormal.

You will agree with us, that the above conditions were not conducive to rapid work in the way of replacing patterns, but by dint of expending all of our energy in the direction of getting your hoist out before any one else's work was taken up, we succeeded in obtaining a few pattern makers to work in a small shop in Oakland, and progress, though necessarily slow in the way of completing your hoist, was actually being made, and little by little we succeeded in getting the hoist finished, carefully tested under air pressure, knocked it down and, with a great feeling of relief, saw the last carload go out this morning.

You will be glad to know that the result of the test was most satisfactory in every way. The large driving gears meshed perfectly, a thing that you very seldom find in cast V gears, and the brake clutch and reversing mechanism responded instantly. Taking it as a whole, we turned out of the shop as good a hoist of its kind as has ever been built.

We expect to have a new works, designed especially for the construction of mining machinery, up and running by about the first

month of next year. We have a large force of draughtsmen at work replacing such of our standard drawings as we will need, and redesigning the greater part of our mining machinery along the most modern and approved lines, and in this respect, we can say that while the damage done to us by the fire, in common with everybody else in San Francisco, has been something enormous; at the same time it has resulted in our being in the field for business with a new equipment strictly modern and up to date in every line, which will give us a consequent advantage over those who are using the drawings and patterns of twenty years ago.

We hope that when the opportunity presents itself, you will give us a chance to figure with you on whatever new work you have in mind, and while on our first order we have apparently broken the record for delays, we would like to have an opportunity on your next order to break the record for quick delivery.

Yours truly,

UNION IRON WORKS COMPANY,

By Ely Hutchinson.

The six months' delay has been exasperating, not only to your Board, but to hundreds of the stockholders, as attested by letters we receive every day.

The losses caused by the delay have been great. The Union Iron Works Company sustained a loss of several thousand dollars in the manufacture and delivery of the hoist.

The Montana-Tonopah Company lost in prestige and public favor, not computable in dollars and cents.

During the time that it has been impossible to extract the thousands of tons of valuable ore, known to be in the mine, irresponsible, ignorant parties have stated that half the value of the property has been eliminated. Impossible and ridiculous! Evidently so considered by the stockholders, for the shares have been well held and the price maintained at a figure which clearly indicates that the shareholders have the correct idea of the true value of the mine. The values are there and cannot escape or be realized upon until adequate equipment is in place and in operation.

As stated above, additional hoisting capacity was the essential necessary to increased production, and at the same time prolong the life of the mine.

Will any fair-minded person, recalling the greatest disaster in the world's history—that which overwhelmed San Francisco last April—contend that the Union Iron Works Company could have finished the hoist sooner than it has?

One year ago our equipment consisted of a 30-foot wooden head

frame (intended for prospecting only), a 4-drill compressor, and a 12x14 Webster, Camp & Lane hoist.

This limited equipment gave your Board two alternatives: (1) either "gopher" the ore bodies, and hoist shipping ore only, thereby providing a period of unhealthy prosperity; or, (2) install machinery adequate to the ultimate needs of the property, utilizing our limited equipment in the development of additional ore reserves.

The new equipment was ordered, and a glance at the following tabulated statement will show that all facilities at our command were utilized to the utmost.

TABULATED STATEMENT.

LEVEL	DEPTH	DRIFT SEPT., 1905		OCT., NOV., DEC., 1805		JAN., FEB., MAR., 1906	
		Drifts and Crosscuts	Raises and Winzes	Drifts and Crosscuts	Raises and Winzes	Drifts and Crosscuts	Raises and Winzes
First	392			365.20	90.00	269.00	49.00
Second	462			135.00	45.00	258.84	20.00
Third	515	Intermediate		479.68	374.76	619.30	315.32
Fourth	615	Intermediate		648.45	129.00	817.78	30.00
Fifth	762			447.61	169.62	604.99	77 00
Totals		486.00	112.00	2075.94	808.38	2569.91	491.32
		598.00		2884.32		3061.23	

LEVEL	DEPTH		APRIL, MAY, JUNE, 1906		JULY, AUG., 1906	
			Drifts and Crosscuts	Raises and Winzes	Drifts and Crosscuts	Raises and Winzes
First	392		47.00		20.00	
Second	462		486.26	40.00	382.33	
Third	515	Intermediate	741.89	229.00	553.44	31.00
Fourth	615	Intermediate	578.79	120.00	527.20	165.00
Fifth	765		230.61	101.00		
Totals			2084 55	490.00	1482.97	196.00
			2574.55		1678.97	
			Shaft		50.00	
					1728.97	

Total for year from September 1, 1905, to September 1, 1906, 10,847.07 feet.

Grand total of workings September 1, 1906, 22,852.23 feet.

1903	1904	1905	1906
2509	4116	5380	10,847

Ten thousand, eight hundred and forty-seven feet of work for the year as against 5,380 feet for the preceeding year, and nearly half of the grand total of 22,852 feet for four years, is a record of which Mr. Kirby should feel justly proud.

Of the 10,847 feet, the most significant feature is the fact that 8,203 feet of this work are drifts and crosscuts, the 2,644 feet of raises and winzes are necessary to the development of the ore bodies after they have been crosscuted and drifted upon.

The total length of drift on the first level east and west is 703 feet, and only about 100 feet have been stoped, leaving 603 feet to be prospected.

Mr. Kirby states in his report of January 6th:

"On level No. 1 we have drifted 300 feet to the west, following the vein, and have encountered and opened up large ore bodies of low grade quartz, with some places showing good grade ore. When we open these up with raises we will undoubtedly get good quantities of pay ore. On the east, same level, we made a crosscut and found Ruby Alley ore body and are now stoping on same."

This is the Macdonald vein at the 390 foot level. The cap rock was pierced at the 372-foot mark and rises at an angle of about 32 degrees to the west, and it is reasonable to assume that the vein is continuous to the cap rock. There is, therefore, a big tonnage above the 300 feet of drift, which has not been prospected

The vein at the shaft on this level has not been drifted upon to the west at all, but work has now started.

The total length of new drift for the year on the second (462-foot) level is 1,262 feet. It was on this level that the first mining was done in the property, but after the rich ore body near the shaft was extracted little attention was given to the level until January of this year. Mr. Kirby's statement upon this work in his report of April 5th is as follows:

"We have drifted 269 feet on the vein and cut several shoots of good shipping ore, which we will develop later on. Also sank twenty feet o fa winze on vein to connect with stope for air."

His report for the next quarter, ending July 1st, reads as follows:

"No. 2 level. We have been developing on veins both east and west, and have cut two shoots of ore, but have done no stoping on account of poor air; expect to have air connections in twenty days, when stoping can begin."

On the third, or 512-foot level, we have 2393 feet of a new drift, of which fully 75 per cent is in vein. On this level we have connected

with the Midway mine on the west and with the North Star on the east.

The Miday drift is in vein matter for the entire distance from our crosscut to the line, about 1,100 feet, with the exception of 200 feet This portion of the drift is north of and outside the vein, but a back drift will be prosecuted to prospect this portion of the Macdonald vein.

On the extreme west, near the Midway, some stoping has been done for a distance of about 140 feet on the strike of the vein, and two platforms, about 16 feet above the level, have been opened out.

This is a good grade of shipping ore and there is every indication that it will extend to the level above, and it has been proven on the level below by a winze and by the fourth level, which has recently been driven to the winze.

For convenience this body of ore will be referred to hereafter as the "Northwest Splice" of the Macdonald vein.

Immediately north of this body of ore in a crosscut paralelling our end line, another vein is exposed, showing 6 feet of a good grade of ore. This has not been correlated with any other vein that we have and has not been drifted upon.

This is only one of the many places in the mine where good ore has been exposed and lack of hoisting facilities has prevented us from prospecting them. The ore bodies in the older workings have furnished us all of the shipping ore necessary to pay expenses and more than we could hoist and continue development.

The general scheme of development has been to drift on the Macdonald and South veins on all levels, east and west. The A. B. K. and Martha veins have been quite extensively prospected, with excellent results; but this work has been usually incidental to development on the Macdonald and South veins.

For example, we are driving on the second level west on the Martha to make an important air connection with a raise from the third level on the Macdonald vein. An average sample of the last 50 feet of this drift yields (sample 201) $60.80 gold and $261.80 silver. This is unusually high, but the average of the Martha vein in the few openings we have on it are uniformly high grade.

Before leaving the third level I will quote from Mr. Kirby's quarterly reports of January, April and July:

No. 3 level. We have connected this level on the west with the Midway 368-foot level and encountered a fine body of shipping ore on ledge before holing. This connection gives us good ventilation all through the mine and has improved the air very much. We opened up several ore shoots that are very promising and will develop same later. At present am doing some stoping in three places and driving three prospecting drifts on this level.

"No. 3 level. The crosscuts and drifts have been pushed as fast

as possible along the veins, with satisfactory results. Forty feet of a winze on east side sunk in fine ore, and 235 feet of raises on vein for air and handling ore in west drift, and 40 feet of winze in good ore below west stope.

"No. 3 level. We have been drifting, raising and stoping on all three veins, east and west of the shaft, and are now taking out fine shipping ore on this level."

The closing paragraphs of Mr. Kirby's April report are as follows:

"Before the next quarter expires our new equipment will all be in running order and ready for mining on an extensive scale.

"The tests made on our mill ores by Mr. Fred M. Field, assayer and metallurgist, have just been made and are very satisfactory. The method of milling has not been fully decided upon, but rests between one of the last two tests.

"In conclusion, will say that the mine as a whole is looking better than at any time during my management, and is improving all the time. I have no hesitancy in saying it will yet make a record that will be pleasing to all."

More work has been done on the fourth (615-foot) level than any other during the year, there having been driven 2,571 feet of new work. More development was done on the east ends of the Macdonald and South veins on this level than on all the others combined. More stoping is being done on the east fourth level in the Macdnald vein than in any other part of the mine. We are now on the second platform of a stope extending from sample mark No. 4 to No. 5, a distance of 180 feet, in the intermediate between the third and fourth levels above, and about ninety feet west of sample mark No. 4, we have a six-foot face of high grade ore, proving this shoot to be at least 270 feet long, with 61 feet of backs between the fourth and intermediate levels, and a strong possibility of its continuation to the third level.

Neither the first or second levels has been projected over this ore shoot. In fact, the only stoping that has been done east of our main crosscuts is in the Macdonald between the second and fourth levels, for a distance of only 149 feet (to Ruby Alley), leaving a territory approximately 500 feet in length between our shaft and the North Star line pracitcally untouched.

That the Macdonald, A. B. K. and South veins will run into the North Star is almost a certainty. As to the South vein, it is already proven and we have mined one carload of high grade shipping ore trom that portion of the vein, through the North Star shaft.

The fact that the caprock will be encountered at some point between the two shafts in the second and third levels, and possibly the fourth levels, must be considered in the computation of tonnage in that section.

On the west fourth level we have drifted about 850 feet on the Macdonald vein.

Several shoots of good ore were passed through, but could not be prospected until an air connection was made with a winze sunk from the third level about 200 feet east of the Midway line.

This was accomplished July 31st, and we are now enabled to prospect the ore bodies exposed.

As an example of the possibilities in the vast amount of unexplored territory belonging to this company, I will call your attention to the development of the Northwest Splice of the Macdonald mentioned above.

This ore body was encountered on the fourth, west 150 feet east of the winze from the third, just as projected. It crosses the drift at an angle of about 40 degrees, so that in crosscutting this drift there were only 15 feet of ore exposed—certainly disappointing when you are expecting an ore body at least 140 feet in length. However, after the air connection was made drifts were started on the ore both ways, and at present writing have gone 53 feet west and 67 feet east.

The vein is from 8 to 12 feet wide, and an average sample taken, from which all specimen ore was eliminated, yielded $49.44 per ton.

On the third level the shoot is 140 feet in length and 4 to 6 feet wide. The distance on the vein from level to level is 132 feet. Assuming the total length on the fourth level to be only 123 feet, and the width 8 feet, there are between the two levels 10,822 tons of ore, which at $50 per ton, gives a value of $541,100, approximately.

It would seem incredible that this amount of ore could be put in sight in forty days, but nothing could be claimed for it until it had been prospected on the lower levels, although we had reason to believe that the ore went down to this level. It is also reasonable to assume that it will continue to the fifth level, 150 feet below, or 190 feet on the dip. There are several other places on the west drifts on the first, third, fourth and fifth levels which promise to yield to development just as readily as did this one.

On the fifth (765 feet) level and intermediate level we have drifted only 1283 feet, having been handicapped a great deal of the time on account of poor air. However, some connections were made in December which enabled us to give this level some attention.

Mr. Kirby reports in January as follows:

"On No. 5, our lowest level, we are stoping some good grade ore in three different places. The air was very poor on this level until lately, and we could do no stoping to advantage. On account of connections this has been overcome. We are now driving west on ledge and getting some good values in vein.

"Have bored 450 feet of ground with diamond drill on and below 765 or fifth level. Finished one hole in low grade quartz; now drilling another hole in opposite direction."

At a point about 350 feet west of the crosscut, the Macdonald vein apparently faulted to the north, and the fault plant was followed for a distance of about 90 feet, where the vein was again picked up and followed.

Subsequent developments indicate that we have followed the A. B. K. vein and that the Macdonald holds her strike to the west. We are now drifting on the Macdonald proper, and will reach the Midway line before our mill is completed.

The west drifts on the first and second levels will also be projected immediately, thus making available before the mill is in operation 900 feet of unstoped vein on the Macdonald ledge alone, with four levels open on the vein. (See map attached).

We are now sinking the shaft below the 765 level. The present total depth is 829 feet.

The formation is very promising, being the earlier andesite and oxidized seams are now coming in. While these seams do not carry any quartz, we are obtaining assays as high as $5 to the ton.

At the first meeting of your Board, held in Tonopah, October 15th, it was ordered that extensive mill tests be inugurated at once. Accordingly shipments of ore were made to Denver and San Francisco, and a series of practical tests made under the supervision of Mr. Fred M. Field, begun in San Francisco in December, lasting until February 10th, when Mr. Field left for Denver to make further tests there. Mr. Field ran through ten lots before leaving San Francisco, and obtained very satisfactory results by concentrating and cyaniding. After his departure the work was taken up by Mr. F. L. Bosqui and at least ten more lots were put through to verify and check the results obtained by Mr. Field.

During this period Mr. Field ran several lots of ore in Denver. using a modified chlorination process involving a light roast. The saving was very satisfactory in this case also.

Just at this time the San Francisco disaster occurred, and all of the records of the concentration and cyanide tests were destroyed.

The results of both processes having been satisfactory, we shipped more ore to Denver to make final tests to determine which of the two processes was better adapted to our use and the conditions under which we will have to operate.

These tests were made under the direction of Mr. Bosqui—Mr. Field having been employed by the Shoshone Company to determine a method for the treatment of its Bullfrog ores.

Mr. Bosqui's conclusion was that the process evolved by Mr.

Field was the better one, and we have determined to erect a forty-stamp mill just as soon as possible, immediately north of our shaft. The site is an ideal one, as the fall from the batteries to the tail dump is 55 feet, thus enabling us to operate most economically.

The Nevada desert is an expensive place to operate or carry on a business of any character, and especially so when power, water and fuel are involved.

We therefore feel that in finding a process by which 85 to 88 per cent of the values can be extracted at a cost of $3.00 or less per ton, we are very fortunate.

In estimating the cost of treatment, Mr. Bosqui contemplated the erection of a twenty-stamp mill, or about 100 tons per day. Electric power at $9 per horse power per month, and water at $1.50 per 1000 gallons.

The water will cost us $1.00 per 1000 gallons, power less than $8.00, and we will treat from 160 to 200 tons per day, thus reducing the cost of treatment materially; but I am unable to give exact figures at this time. The cost of mining will also be greatly reduced. We will use a double-deck cage with counter balance, increasing hoisting capacity more than 100 per cent at a cost not exceeding the present cost. The 12-drill compressor, recently installed, in addition to the four drills already in use, will enable us to eliminate most of the hand work, and produce more ore with half the force now employed. All ore will be sorted underground.

The gross value per ton of ore shipped during the past year was $54.52, or 95 per cent of the assay value of $57.25; cost of mining, $4.00 per ton; cost of sorting, $1.23 per ton; cost of freight and treatment, $19.30 per ton, making $24.53 as the total expense on every ton of ore shipped to day. Assuming that the assay value value of all ore treated is only $24.53, the cost of mining reduced to $2.53 per ton, and treatment $3.00 per ton ,and only four tons to the stamp treated, or 160 tons per day, the daily receipts will amount to $2,451.28, or $73,538.40 per month, from which a monthly dividend of $50,000 can be paid, leaving $23,538.40 for office expense, supplies and surplus.

The assumption of $24.53 per ton is not unreasonable, as a careful sampling of 39,632 tons of milling ore, estimated by Mr. Kerr to be exposed in the development work of this year alone, gives an average of $27 per ton.

We have shipped during the past year 5,788 tons and placed on the mill dumps 11,576 tons (estimated). Mr. D. B. Gillies' estimate of shipping ore in sight a year ago was sixty thousand tons. Deducting this year's extraction, there should be in the old workings 54,212 tons of shipping and 108,424 tons of milling ore, and adding to this 39,632

tons of milling ore measured up in this year's development, will give us a total of 148,056 tons of milling ore exclusive of that already on the dumps, which is estimated at 30,000 tons, worth at least $15 per ton.

The question of dividends naturally arises at this point. With the small equipment it was impossible for us to pay dividends and do the necessary development work. With the new equipment in place and in operation, it is possible for us to accumulate a surplus and pay a dividend before the mill is completed.

This is a question for the incoming Board to decide. It is the opinion of the writer that ti would be an extravagance to increase shipments beyond the point of meeting necessary expenses before the mill is completed.

We will take for example the 10,000 tons of $50 ore available in the Northwest Splice of the Macdonald vein. The smelters will accept from us at least twenty-five tons per day, the assay value of which is $1250, less 62.50 (5 per cent smelter discount), $63.25 mining expense $(2.53 per ton)and $482.50 freight and treatment ($19.30 per ton this year's average), total expense $608.25 per day, leaving a profit of $641.75 per day, or $19,252.50 profit in thirty days' shipment of this grade of ore.

The same ore milled at a cost of $3 per ton and mining also $2.53 per ton and 85 per cent saved, would net the company $31,460.25, a difference of $12,192.75 in favor of the mill.

A full month's mill run on this grade of ore ($50 per ton) should ne tthe company not less than $177,456.00.

However, it is not reasonable at the present time to expect to mill a grade of ore averaging $50 per ton.

The average assay value of the milling ore exposed in this year's development work is $27 per ton.

If 160 tons per day are milled at a cost of $5.53 for mining and treatment, a saving of only 85 per cent made, the net return will be $83,616 in thirty days.

Reducing the average to $20 per ton, a few cents above the cost of freight and treatment on the ore shipped during the past year, we will realize $55,056.00 per month.

The mine will produce, and with the new equipment now in place we can easily hoist 200 tons or more per day. Theoretically, the mill will treat that amount and save at least 87 per cent of the assay value, thus increasing the earnings materially.

We have contracted with the Allis-Chalmers Company of Chicago and Milwaukee for the complete mill equipment, with a guarantee of complete shipment within 110 days.

The mill will cost, aproximately, $140,000. The ore already accumulated and paid for, now on the dump, will pay for the mill three times over.

Our General Manager, Mr. Mark B. Kerr comes to us with a thorough knowledge, not only of the Tonopah District, but a ripe experience in the operation of big low grade mines on the Mother Lode and other California properties, where economical operation and successful milling at a low cost are not only essential, but absolutely necessary to the life of the mines.

The application of economical principles in the operation of high grade properties such as we have here in Tonopah will not be in the least objectionable, and now that our property has been so thoroughly explored and made susceptible of prospecting at low a low cost, the production of dividends with the least expense has become the paramount issue. The completion of the mill places us upon a manufacturing basis, with a tonnage in sight which guarantees us continued prosperity for a number of years.

Respectfully submitted,
CHARLES E. KNOX, President.

Report of General Manager

TONOPAH, Nevada, October 10th, 1906.

Chas. E. Knox, Esq.,
President The Montana-Tonopah Mining Co.,
Tonopah, Nevada:

Dear Sir:

The following is the report of mine work for September, 1906:

HOISTING.

650 tons of second class ore were hoisted.
309 tons of third class ore were hoisted.
2272 tons of waste were hoisted.

Eleven railroad cars, aggregating 479 tons, were shipped, of a gross assay value of $62 silver and $24 gold. The receipts net from this were $16,500.00, nearly, and expenses for month, $15,000.00. The first and second class ore went together to the sorting house, and the balance after sorting went to the mill dump.

The 309 tons of third class ore were placed on the mill dump.

The average number of men employed was 104, and 17 men and 6 teams on the mill contract work.

The ore hoisted was divided as follows:

	Second Class.	Third Class.
Third to fourth levels	623	297
Fourth to fifth levels	27	12
	650	309

The total ore hoisted of all grades as above was 959 tons at a profit of $1,500 and a cost of $15,000 or $15.64 per ton. Taking the shipping ore alone, the total costs were $31.31 per ton. At $6 per ton for mining and milling, the cost would have been $5,754, and profits would have been $10,746. So at a glance it can be seen how much we are losing in not having a mill and in sending ore in bulk to the smelters.

PROGRESS

523 feet of drifting on ore for the month.
63 feet of raising on ore for the month.
4 feet of sinking on ore for the month.
183 feet of drifting on dead work for the month.
32 feet of shaft sinking on dead work for the month.

DEVELOPMENT

The drifts on the intermediate between third and fourth levels toward the northeast and southeast have improved in value, and the Northwest Splice is holding its own at both ends.

MILL.

The order for the mill supplies has been placed and the grading for the stamp and concentrating floors is well under way. Excavation for the additional boiler is completed, and new powder magazine well under way.

The saw mill and fire hoses have been put in commission.

WASTE.

From mill dump	150 tons
From first to second	520 tons
From second to third	371 tons
From third to fourth	851 tons
From fifth	880 tons
	2772 tons

NEW HOIST AND SHAFT

The guides for the new compartment of the shaft are expected to arrive very soon now. As soon as they are received we will have them put in the main working compartment and the new hoist put in use. The old guides will be used in the counterbalance compartment.

Some heavier 8x8 timbers will have to be put in at the different stations.

It will thus be necessary to shut off our hoisting for a few weeks until this repair work is completed, but as stated before, the longer we are shut down now, the more profit we will eventually make when the mill starts. The development work will continue as usual and the shipments stopped, merely during this interim.

GENERAL.

The general plan of exploration is to concentrate work on pivotal points, timber and build chutes at points where pay ore is exposed, and push work in preparation for the larger output.

We are also sinking the shaft deeper in order to prospect the mine at a greater depth.

The general appearance of the underground working continues to improve.

Faithfully yours,

MARK B. KERR, General Manager.

Report of the Secretary and Treasurer

To the President, Board of Directors and Stockholders of the Montana-Tonopah Mining Company:

Gentlemen:

I beg to submit the following report of receipts and disbursements of the company's funds for the year ending August 31st, 1906:

RECEIPTS

Balance with banks August 31, 1905		$ 84,920.00
Ore receipts		203,841.27
Transfer fees		597.18
Toll on cars		573.00
Rents		259.58
		290,191.03
Supplies on hand August 31, 1905		14,383.59
		$304,574.62

DISBURSEMENTS

Mining	$ 72,369.14	
Mine development	129,787.88	
Ore handling	7,123.98	
Permanent improvements	29,324.31	
Sundry Departments and General Expense	18,121.07	
	$256,726.38	$256,726.38
Bills collectable		991.49
Supplies on hand August 31st, 1906		11,033.86
Balance with banks		35,822.89
		$304574.62
Total number of tons ore shipped, 5,788.9; gross value per ton $54,515.46, making total gross value of all ore shipped		315,584.57
Cost of transportation and treatment per ton, $19.3029, making the total for all ore shipped		111,743.30
Total net value		$203,841.27
Showing a net value per ton of all ore shipped of		$35,212.44

Respectfully submitted,

W. B. ALEXANDER, Secretary and Treasurer.

266194

THE MONTANA-TONOPAH MINING COMPANY

REPORT FOR FISCAL YEAR 1910-1911

The Montana-Tonopah Mining Co.

(Incorporated Under the Laws of Utah, August 16, 1902)

CAPITAL STOCK

Authorized . . . 1,000,000 Shares
Issued . . . . 921,865 Shares

DIRECTORS

Henry D. Moore	W. B. Alexander	Wm. P. M. Braun
Thos. J. Lynch	Dudley Baldwin	J. M. Wynn
W. E. Knowles	Chas. E. Morris	Chas. E. Knox

OFFICERS

CHAS. E. KNOX, President and Gen'l Manager
HENRY D. MOORE, Vice-President
THOS. J. LYNCH, 2nd Vice-President
W. B. ALEXANDER, Secretary-Treasurer

Arthur J. Lawry, Mine Superintendent

B. A. Bosqui, Mill Superintendent

TRANSFER OFFICE

Tonopah, Nevada

REGISTRAR

The Tonopah Banking Corporation, Tonopah, Nevada

The Montana-Tonopah Mining Co.

REPORT FOR FISCAL YEAR, 1910-1911

Salt Lake City, Utah, September 12, 1911.

In compliance with the Articles of Incorporation, and pursuant to the notice mailed each stockholder, the Ninth Annual Stockholders' meeting of the Company was held at Salt Lake City, Utah, September 12, 1911.

There were present at the meeting 709,465 shares of the outstanding capital stock of the Company, represented in person and by proxy.

A resolution was presented and unanimously adopted, amending the Articles of Incorporation by changing the date of the annual stockholders' meeting from the second Tuesday in September, to the first Tuesday in October.

The following Directors were elected for the ensuing year:

HENRY D. MOORE, WM. P. M. BRAUN, DUDLEY BALDWIN, W. E. KNOWLES, W. B. ALEXANDER, THOS. J. LYNCH, J. M. WYNN, CHAS. E. MORRIS, CHAS. E. KNOX

The reports of the President, Mine Superintendent and Mill Superintendent, and financial statement of the Secretary-Treasurer were submitted, ordered printed and mailed to each stockholder.

Immediately following the adjournment of the Stockholders' meeting, the Directors met and chose the following Officers for the ensuing year:

CHAS. E. KNOX.....President and General Manager
HENRY D. MOORE.....Vice-President
THOS. J. LYNCH.....Second Vice-President
W. B. ALEXANDER.....Secretary-Treasurer

To the Stockholders of The Montana-Tonopah Mining Company:

The Annual Reports of Mine Superintendent Arthur H. Lawry, and Mill Superintendent Benj. A. Bosqui, and the Financial Statement of Secretary-Treasurer W. B. Alexander, are herewith submitted.

The reports show material reductions in both Mining and Milling costs, and promise good results for the ensuing year.

The Financial Statement is the most satisfactory in the Company's history, all things considered.

Two dividends, aggregating $120,000, were paid during the year, and a very comfortable cash balance remains in your Treasury. The available cash assets are as follows:

Cash in banks	$183,133.64
Bullion and concentrates in transit	61,046.47
Bills receivable	20,000.00
	$264,180.11

Respectfully submitted,
CHAS. E. KNOX,
President and General Manager.

To the President, Board of Directors and Stockholders of The Montana-Tonopah Mining Company:

I herewith present my annual report on operations at the mine during the fiscal year ending August 31, 1911.

Throughout the year both mine and mill were operated continuously, and a steady production maintained. Results of the year's work show a slight general improvement over the preceding year.

In the mine the amount of development work done, together with diamond drilling, compares closely with the amount for the preceding year, while the tonnage of ore produced exceeds that of the previous year by 1,847 tons.

The following table shows a comparison of the year's results with that of the preceding year:

	1910-1911	Per Ton	1909-1910	Per Ton
Tons mined and milled..	52092.2		50245.0	
Gross value per ton of ore produced during year		$14.57		$15.22
Net value of ore produced during the year	$659,912.26	12.66	$650,405.11	12.94
Total expenditure	488,830.79	9.38	515,689.71	10.26
Total profits from ore...	171,081.47	3.28	134,715.40	2.68
Development footage	9,932 feet		10,681 feet	
Diamond drilling	1,086½ feet		none	

It will be noticed that the increased tonnage was produced at a much lower cost. This is due to general reduction in costs in all branches of the work. On the other hand, the net value per ton of the ore produced was less than that of the preceding year, due to the slightly lower grade of the ore.

MINE

In addition to the 52,092 tons of ore produced, a total of 18,460 tons of waste were hoisted and trammed to the dumps, which is 543 tons less than the previous year. This is explained by the fact that the development footage is 749 feet less.

The following is a statement showing the tonnage of ore and waste hoisted from the different levels.

STATEMENT OF HOISTING OPERATIONS

For the Year Ending Aug. 31, 1911

Month	.804 tons per car tons ore	.748 tons per car tons waste	Total tons hoisted
September, '10	4478.53	1196.6	5675.13
October, '10	4542.95	1600.6	6143.55
November, '10	4568.92	1415.3	5984.22
December, '10	4457.79	1598.2	6055.99
January, '11	4510.65	1637.2	6147.85
February, '11	4192.39	1204.5	5396.89
March, '11	4064.11	1806.8	5870.91
April, 11	4198.13	2199.0	6397.13
May, '11	4302.68	1743.0	6045.68
June, '11	4065.26	1406.2	5471.46
July, '11	4363.33	1194.7	5558.03
August, '11	4347.46	1458.0	5805.46
	52.092.20	18460.1	70552.30

DISTRIBUTION OF ORE AND WASTE

Year ending Aug. 31, 1911

Level	.804 tons per car tons ore	.748 tons per car tons waste	Total tons hoisted
1st level (396 ft.)	11407.60	84.1	11491.70
2nd level (462 ft.)	4346.00	1743.0	6089.00
3rd level (515 ft.)	6682.00	403.0	7085.00
4th level (615 ft.)	28856.00	10548.0	39404.00
5th level (765 ft.)	800.60	5682.0	6482.60
	52.092.20	18460.1	70552.30

As heretofore, a large proportion of the waste broken in development was used to help fill the stopes, but, as compared with the previous year, the amount of waste hoisted is larger in proportion to the amount of development footage. This is due to the fact that in many cases it has been found less expensive to hoist the waste than to tram it some distance to a stope. As will be seen in the following table of costs, the cost per ton of ore for hoisting and dumping is 24.4 cents, or 1 cent per ton less than the preceding year.

The following is a statement showing the total cost, and cost per ton, of the different branches of mining operations, taken over a period of twelve months, ending August 31, 1911:

MINING COSTS

Details for the year ending Aug. 31, 1911

52,092.20 Tons Mined

		Average Cost per ton	
Labor—			
Ore breaking	39,901.50	.763	
Mine machines	823.83	.016	
Hoisting and dumping	12,696.79	.244	
Boilers	293.31	.005	
Shoveling and sorting	36,670.50	.707	
Tramming	14,451.36	.277	
Timbering	11,070.60	.212	
Blacksmith sharpening	1,759.35	.032	
Surveying	1,569.98	.030	
Foreman and bosses	4,056.65	.078	
Sampling	886.56	.016	
Storekeeper	606.84	.012	
Assaying	906.14	.016	
Watchman	713.72	.014	
Superintendence	831.67	.026	2.448
Supplies—			
Water	278.67	.005	
Ore breaking	20,417.03	.393	
Compressed air	5,590.13	.108	
Hoisting and dumping	3,202.42	.060	
Hoisting—Electric power	6,944.04	.132	
Timbering	11,210.86	.214	.912
	174,881.95		3.360
*Indirect Mining Costs	1,578.18		
	176,460.13		

*Note—The indirect costs are for supplies furnished during the year 1907, but which were not charged out at that time.

DEVELOPMENT COSTS

Details for the year ending Aug. 31, 1911

52,092.20 Tons Mined

		Average Cost per ton
Labor—		
Breaking	$23,761.91	.455
Hoisting and dumping	4,673.32	.089
Boilers	114.44	.003
Tramming and shoveling	17,861.00	.343
Timbering	4,701.77	.092
Surveying	689.04	.013
Foreman and shift bosses	2,611.10	.051
Storekeeper	335.66	.007
Blacksmith sharpening	827.99	.016
Watchman	374.81	.007
Mine machines	1,050.33	.021
Superintendence	418.33	.008
Supplies—		
Water	121.02	.002
Breaking	13,381.03	.257
Compressed air	4,076.12	.078
Hoisting and dumping	1,348.91	.026
Hoisting—Power	2,769.96	.053
Timbering	1,579.79	.029
	80,696.53	1.550
*Indirect Development Costs	789.09	
	81,485.62	

	Cost	Ton Cost
Diamond drill hole No. 10	$2,262.21	.04
Diamond drill hole No. 11	589.11	.01
	$2,851.32	.05

The total mining cost for the year of $3.360, compared with the cost for the preceding year, shows a reduction of 5.4 cents per ton. This may be explained by the fact that the number of stoping drills has been increased, and all hand work in the stopes avoided. This is borne out by the comparison of the cost of labor with that of the previous year. This year shows a decrease in the cost of labor of about 4 cents per ton.

The cost per ton of development of $1.55, as compared with $1.814 last year, shows a reduction of 26.4 cents per ton.

This is explained by the slight decrease in footage, and the lower cost per foot for both drifting and crosscutting.

The cost per foot for diamond drilling, as shown in the following table, may be considered as highly satisfactory for this district, where such work is usually difficult and frequently very costly.

UNDERGROUND

The amount of development work accomplished during the year shows a total of 9,932 feet, as against 10,681 feet for the preceding year. This does not include 1,086 feet of diamond drill work, which has recently been started from the main north crosscut on the 765 foot level.

*Note—The indirect costs are for supplies furnished during the year 1907, but which were not charged out at that time.

With the exception of a considerable amount of exploratory work in the northern part of the property, on and below the 765 foot level, all the work has been confined to the southern portion of the property, and the veins in that vicinity, which has resulted in the development of a considerable tonnage of good ore.

Important work on the eastern portions of the Triangle and South veins is now in progress, which will undoubtedly result in the development of a large tonnage of good ore. Also extensive prospecting of different portions of the MacDonald vein is expected to afford a considerable tonnage of good mill ore.

The following is a statement showing the distribution of development to the various levels:

DISTRIBUTION OF DEVELOPMENT WORK

Level	Drifting and Crosscutting (Feet)	Raising (Feet)	Sinking (Feet)	Total (Feet)
1st level intermeds	13			13
1st level (396 ft.)	269			269
2nd level (462 ft.)	1069	81	23	1173
3rd level (515 ft.)	1746	11	34	1791
3rd level intermeds	1384	155	13	1552
4th level (615 ft.)	1704	203	18	1925
4th level intermeds	1462	340		1802
5th level (765 ft.)	671	80	200	951
5th level intermeds	456			456
Total	8774	870	288	9932

The average cost per foot for this work, exclusive of compressed air, hoisting and general charges, is as follows:

Drifting	3702 feet	$ 5.91 per foot
Crosscutting	5072 feet	5.66 per foot
Sinking	288 feet	17.10 per foot
Raising	870 feet	6.29 per foot
	9932 feet	Aver. $6.144 per foot

Of this 4330 feet, or 43.6 per cent has been classed as ore development.

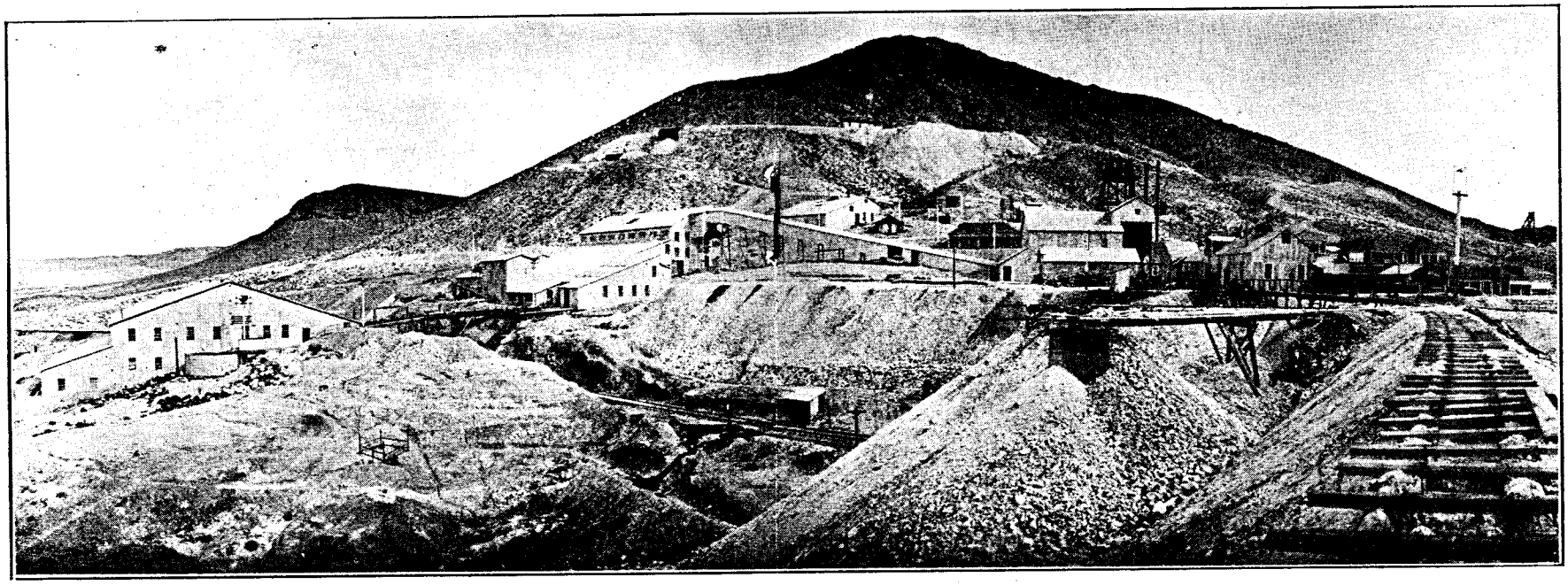
Diamond Drilling—		
Hole No. 10 (Vertical)	733½ feet	$3.04 per foot
Hole No. 11 (Inclined)	353 feet	1.67 per foot
	1086½ feet	Aver. $2.62 per foot

The following is a brief description of the principal work done on the different levels during the year:

1st Level. (396 feet). The work done on this level consists almost entirely of crosscutting between the Triangle and MacDonald veins. In the western portion of the property, the Martha vein was encountered in one of these crosscuts, proving its existence on this level. Otherwise, nothing of value has been found on this level.

Stoping has been in progress on the "hanging wall" and "footwall" branches of the Triangle vein, producing a large tonnage of very good ore. From the intermediate level on the MacDonald vein, 50 feet above this level, a stope is being carried up, producing some very good ore.

2nd Level. (462 feet). On the Martha vein 170 feet were driven in good ore, and stoping on this block of ground is now in progress. The downward extension of the footwall branch of the Triangle vein



GENERAL VIEW OF THE MONTANA-TONOPAH MINING COMPANY PROPERTY, LOOKING EAST

was encountered, and opened up for a length of 75 feet. A small amount of ore was also found in the eastern portion of the south vein.

A total of 567 feet of crosscutting was driven, mainly into the walls of the Triangle and South veins.

3rd Level. (515 feet). On the eastern portion of the South vein a drift 100 feet long was made in ore. A footwall branch of the Triangle vein has been opened up for a distance of 110 feet, exposing a small vein of good mill ore. Extensive crosscutting has been carried on into the walls of the different veins.

Stoping is now in progress on the Martha, MacDonald and South veins, from which a good tonnage of mill ore is being won.

3rd Level Intermediate. About 200 feet have been driven in ore on the downward extension of the eastern portion of the Martha vein, developing a large tonnage of very good ore. Also a small block of mill ore was opened up in the eastern portion of the South vein. Several crosscuts sent into the footwall of the Martha vein, have exposed small blocks of ore.

On the western portion of the MacDonald vein, stoping is in progress, producing some very good ore. Stopes on the Martha and Triangle veins are also producing a good tonnage.

4th Level. (615 feet). On this level several blocks of good ore have been developed. About 75 feet were driven in ore on a footwall branch of the South vein. On the footwall branch of the MacDonald vein 180 feet were driven in ore. In the western portion of the property a small vein of good mill ore was developed for a length of about 100 feet.

An entirely new shoot of very good ore, 110 feet long, has been opened up on the eastern portion of the Triangle vein. This is important, as it is in new ground, and may extend to the levels above and below.

4th Level Intermediate. A total of 580 feet was driven in ore, mostly on the MacDonald, Martha and South veins. A block of good ore, 80 feet long, has been opened up on the South vein, showing a width varying from two to twelve feet, and promises to produce a large tonnage of ore. Drifting on the MacDonald vein has developed a considerable amount of good mill ore.

On the western portion of the Martha vein, 180 feet were driven in ore. Stoping this block is now in progress, from which a large tonnage of good ore is being produced.

5th Level. (765 feet). The greater part of work on this level has consisted of crosscutting, sinking, and diamond drilling. About 70 feet above this level an intermediate drift has been started from the west face of an old stope, near the eastern boundary of the property, and, up to the present, has developed a body of good ore 150 feet long, which in places shows a width of from 6 to 14 feet. Drifting continues to the westward in good ore, and it is expected that a large tonnage will be extracted from this block of ground.

During the year a connection has been made with the bottom of the winze, on the western portion of the Martha vein, by means of a raise from this level, affording good ventilation and facilitating the handling of ore.

Diamond Drilling. On this level, at a point in the main north crosscut, 2,727 feet north of the shaft, a vertical drill hole was started in a body of "Later Andesite". At a depth of 150 feet it passed into "Lower Rhyolite", and continued in this formation to a depth of 733 feet, where the work was stopped.

Another hole, having an inclination of 75° to the north, has been started in the same body of Andesite, about 620 feet northwest

of the first hole. At a depth of 186 feet it passed out of the "Andesite" into the "Lower Rhyolite", in which formation it has continued to its present depth of 353 feet.

ORE RESERVES

In making a statement of ore reserves, one finds it exceedingly difficult to arrive at any accurate estimate. This is borne out by the fact that a year ago an amount of 26,000 tons was given as a reasonable estimate of the available ore in the mine, whereas 52,092 tons have been produced since that time.

In a district such as this, where the veins are so irregular and broken, and faulting so intense, anything but a mere approximation of the amount of available ore in the mine is out of the question.

It is reasonably safe, however, to consider that at the present time there are 19,000 tons of ore available for stoping.

Future development will undoubtedly disclose new bodies of ore, especially in that part of the property which has been so extensively mineralized.

ARTHUR H. LAWRY,
Mine Superintendent.

To the President, Board of Directors and Stockholders of the Montana-Tonopah Mining Company.

Gentlemen:—I submit herewith the annual report of the mill operations, covering the twelve months, ending August 31, 1911.

MILL

The mill crushed 52,092.20 tons, operating a total of 359⅔ days, with an average stamp duty of 3.7 tons.

As compared with the previous year, the results are as follows:

1910-1911	1909-1910
Average value of ore $14.57 per ton	Average value of ore $15.22 per ton
Average value tailing $1.35 per ton	Average value tailing $1.43 per ton
Extraction 90 7-10 per cent.	Extraction 90 8-10 per cent

Average price of silver for the year was .5355 cents per ounce.

Shipments of concentrate and bullion during the year were as follows:

882.092 tons of concentrate, gross value per ton, $303.66; estimated net value, $248,382.81.

39,028 lbs. of bullion, average fineness, gold 12.31, silver 910.36; estimated net value, $413,050.50.

The following is a detailed statement of milling costs:

MILLING COSTS

Details for the year ending Aug. 31, 1911

52,092.20 tons milled

		Average Cost per ton
Labor—		
Superintendence	$ 3,010.00	.058
Crushing and elevating	3,317.75	.062
Stamping	5,025.50	.097
Concentrating	6,113.07	.117
Regrinding	729.93	.014

		Average Cost per ton
Cyaniding—		
Solutionmen	4,815.50	.093
Filtermen	3,881.50	.074
Pumpmen	4,312.00	.083
Roustabouts	1,236.75	.024
Refinery	1,110.60	.021
Precipitating	515.75	.010
Conveyor	1,256.00	.025
Maintenance and Repairs—		
Crushing and elevating	660.42	.013
Stamping	712.61	.014
Concentrating	1,319.66	.025
Regrinding	1,039.64	.020
Lighting	16.03	.001
Dorr classifier	110.62	.002
Frenier pumps	80.07	.002
Agitators	501.74	.009
Solution pumps	89.15	.001
Centrifugal pumps	225.69	.004
Butters pumps	186.29	.004
Butters filters	238.24	.005
Motors	249.36	.005
Pulleys and clutches	1.13	.001
Belting	.63	.001
Piping	53.77	.001
Refinery	67.14	.001
Telephone	.56	.001
Heating	1,724.14	.033
Water pumping	263.51	.005
Assaying	1,355.03	.026
Watchman	1,048.40	.020
Master mechanic	1,337.50	.026
Storekeeper	805.50	.015
General expense	2,109.08	.041
Supplies—		
Cyanide	27,548.96	.528
Zinc	4,264.69	.082
Lime	2,508.80	.048
Lead Acetate	1,893.89	.036
Acid	734.44	.014
Shoes and dies	2,512.14	.048
Pebbles	4,560.91	.087
Water	12,067.38	.231
Power	30,310.58	.582
Heating	9,708.98	.185
Refining	3,663.83	.071
Assaying	472.26	.009
Maintenance and Repairs—		
Crushing and elevating	869.41	.017
Stamping	1,320.72	.025
Concentrating	948.61	.018
Regrinding	3,195.96	.061
Precipitate house	653.71	.012
Lubricating	523.35	.010
Lighting	76.96	.002
Dorr classifiers	20.04	.001
Butters filters	649.95	.012
Butters pumps	66.95	.001

		Average Cost per ton
Solution pumps	73.19	.001
Centrifugal pumps	279.12	.005
Frenier pumps	39.80	.001
Agitators	589.45	.011
Motors	78.67	.001
Water pumping	274.66	.006
Piping	10.22	.001
Belting	778.74	.015
General expense	413.54	.008
Carpenter shop	379.54	.007
	$161,000.71	3.090
*Indirect Mill Costs	4,734.56	
Total	165,735.27	

*Note—The indirect costs are for supplies furnished during the year 1907, but which were not charged out at that time.

The total cost per ton, $3.09, a reduction of 64 4-10 cents from the previous year's results, is due, principally, to a further saving in power and water.

By crowding a tube mill to its maximum capacity, it was found possible to reach the necessary fine grinding with a single mill. The second tube mill is now held in reserve. This makes a saving of about 30 horsepower alone, and combined with care and economy throughout the plant, the Master Mechanic has succeeded in a neat general reduction of power.

In January, 1911, your Company entered into a contract with the Water Company much to your advantage. Through the breaking of the old main, a new connection was made with the Water Company's line just before it enters the town, your Company being the first to take water from their main, thus assuring a steady flow; and at this same time changes were made in the plant's fire fighting system, which greatly increased its efficiency. Irrespective of a temporary shut down of the Water Company through accident, the large reservoir capacity assures a three days' supply always on hand.

Respectfully submitted,
B. A. BOSQUI.
Mill Superintendent.

To the President, Board of Directors, and Stockholders of The Montana-Tonopah Mining Company.

Gentlemen:—I submit herewith statement of receipts and disbursements of your Company's funds for the fiscal year ended August 31, 1911:

RECEIPTS

Balance in banks August 31, 1910			$177,702.35
Supplies on hand August 31, 1910			32,931.05
Ore Receipts—			
Concentrates	$248,776.74		
Bullion	395,424.55		
			644,201.29
Rents			12,408.34
Transfer fees			190.25
Toll on cars		5629.00	
Toll on cars prior to Aug. 31, 1910		3509.00	
			9,138.00

Railroad claims		646.77	
Investments		309.27	
Discounts		700.53	
Interest		738.00	
Bills collectible		9,461.35	
From all other sources		65.05	

DISBURSEMENTS

Mining		$176,460.13
Development		81,485.62
Shipping and selling		2,613.42
Road Construction		165.20
Maintenance—		
Dwellings	$ 597.07	
Mine buildings	290.30	
Surface buildings	2655.12	
Underground plant	3996.35	
Machine shop	511.51	
Carpenter shop	13.87	
Blacksmith shop	1180.92	
Montana Club	729.56	
Transformer house	179.04	
Sewer	168.00	
Telephone	23.99	
Tailing dam	367.11	10,712.84
Mill expense		165,735.27
Accidents		225.00
Insurance—		
Employers' liability	3039.74	
Fire	2068.30	5,108.04
Taxes—		
Bullion	5080.55	
Corporation	999.39	
State and County	3151.40	9,231.34
General Expense—		
Salaries	15000.00	
Office	4584.26	
Books and stationery	358.69	
Telephone and telegraph	516.34	
Water	51.45	
Traveling	445.75	
Miscellaneous	3056.15	24,012.64
Property		995.00
Diamond drill hole No. 10		2,262.21
Diamond drill hole No. 11		589.11
Railroad spur		2,876.56
New property		651.17
Legal expense		723.59
Royalty		114.36
Geology		3,984.89
Philadelphia office		418.10
Bills receivable		20,000.00
Fire equipment		564.42
Surface tram		407.11
Dividend No. 3	$60,000.00	
Dividend No. 4	60,000.00	120,000.00

Suspense ($10,000 chargeable to new property)		14,829.60
Voucher accounts payable		34,492.69
Bills collectible		668.42
Supplies on hand Aug. 31, 1911		26,031.88
Cash in banks Aug. 31, 1911		183,133.64
	$888,492.25	$888,492.25

The estimated value of bullion and concentrates outstanding and unsettled for amounts to $61,046.47.

W. B. ALEXANDER,

Secretary-Treasurer.

Longitudinal Section
Montana Tonopah Mine.

Showing Workings Projected on East-West Vertical Plane.

Scale $\frac{1}{360}$

Macdonald Vein Stopes.
South Vein Stopes.
Martha Vein Stopes.
A.B.K. Vein Stopes.

North Star Shaft.

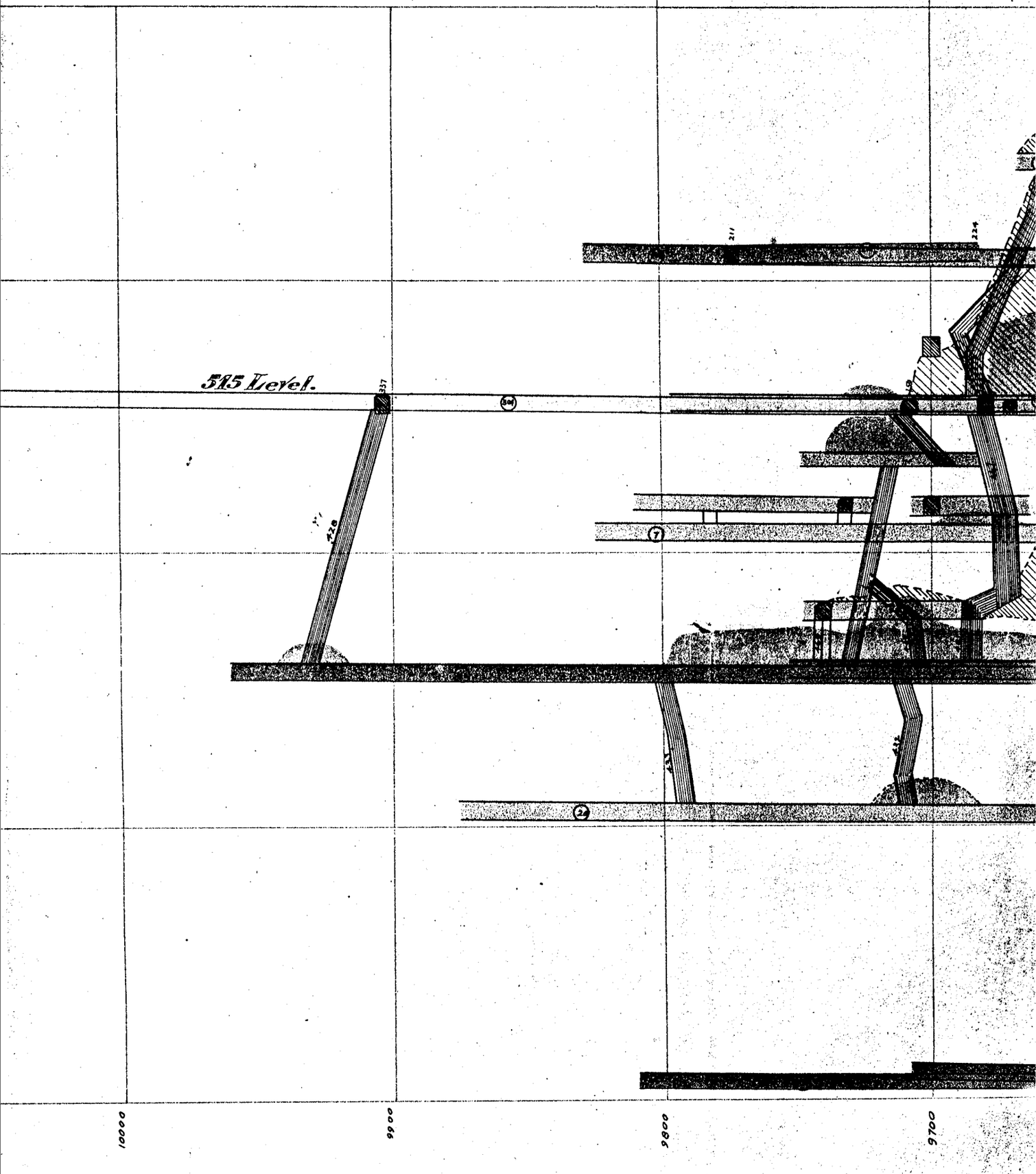
...dinal Section
...tana Tonopah Mine.

...ings Projected on East-West Vertical Plane.

Scale $\frac{1}{360}$

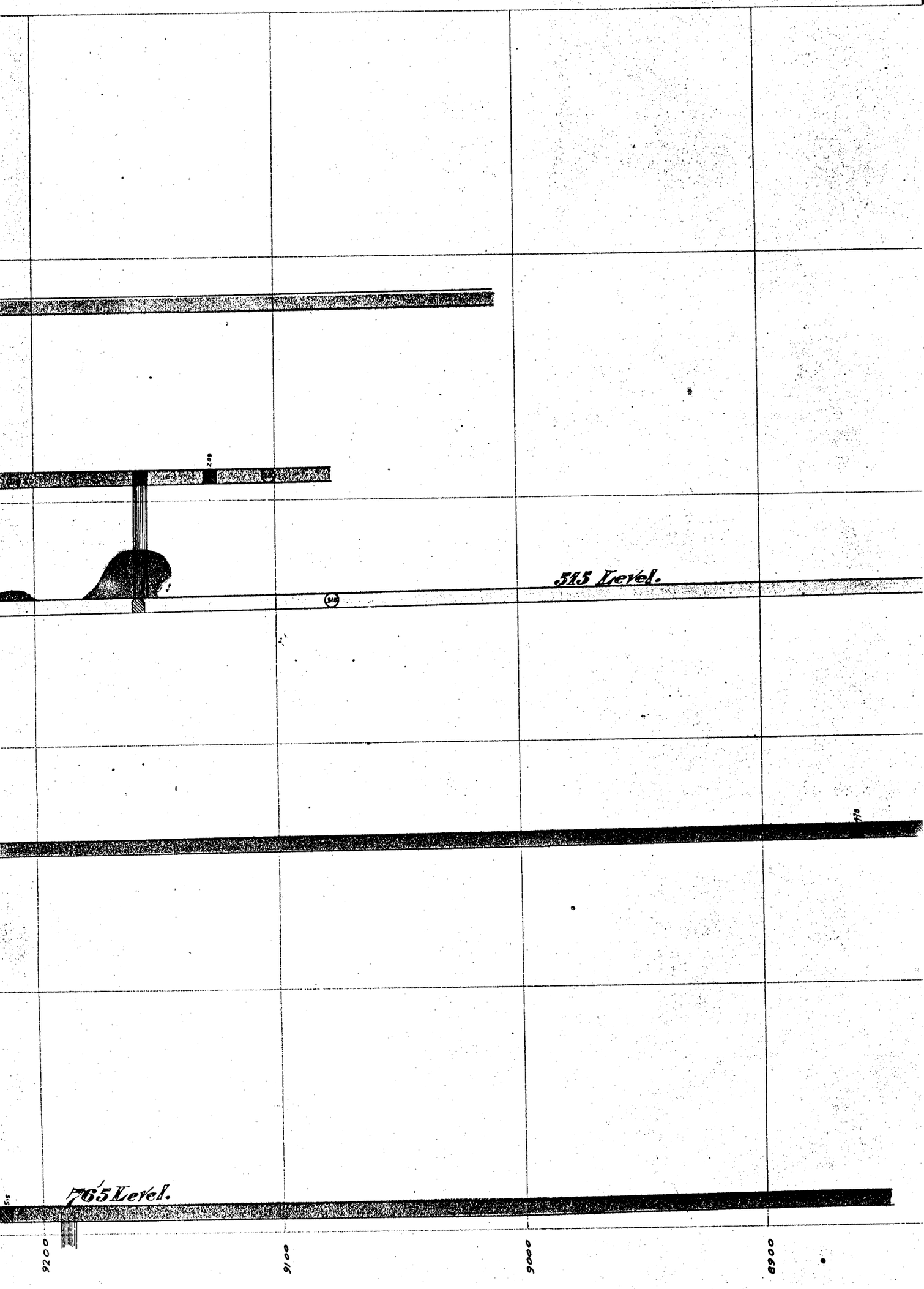
...Stopes. Martha Vein Stopes.

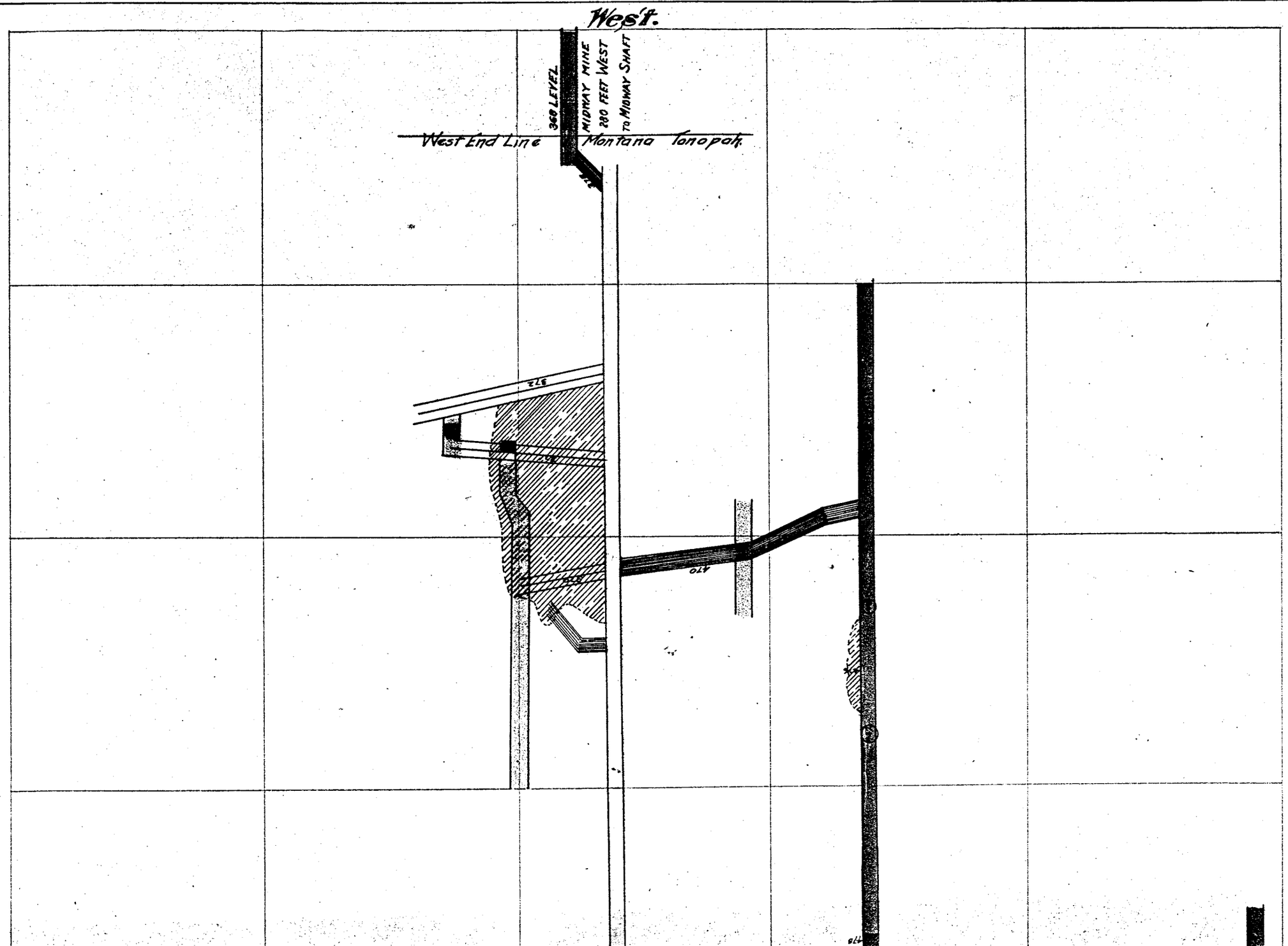
...Stopes. A.B.K. Vein Stopes.



Shaft.
Morrogeah
Montana
615 Level.
9800
9700
9600
9500

390 Level.
462 Level.
765 Level
9500
9400
9300
9200


515 Level.
765 Level.
9200
9100
9000
8900



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